

## APPENDIX VI

UpdateClientList (\* form a client record for each distinct client, useful if implementing hunt groups \*)

Empty *ClientList*

For each link record LR in LinkArray such that LR.State = ON do

    If LR.ClientId not in ClientList then

        Create a newRecord CR and add it to ClientList

        CR.ClientId = LR.ClientId;

        Let CR be the Clientrecord with CR.ClientId = LR.ClientId

        Let L be the link corresponding to link record LR

        Add L to CR.LiveLinks if not already there

    (\* if implementing hunt groups reassign logical port for huntgroup to \*)

    (\* correspond to CR.LiveLinks and store logical port in L.HuntGroupLink \*)

    (\* Otherwise L.HuntGroupLink = L itself \*)

UpdateVlanInfo (\* assign at most one link per client to each server Vlan \*)

For each Vlan Record VR in VlanList

    Let V be VR.VlanId

    (\* update client links of Vlan to be links that mention this Vlan \*)

    VR.ClientLinks = {L: V is in LinkArray[L].Vlans and LinkArray[L].State = ON}

UpdateAddresses (\* process 48-bit address info received from clients \*)

    (\* first update list of 48-bit Ids received from all clients \*)

    ClientAddresses:= Set Union of LR.ClientAddresses and LR.PhaseIVAddress

        taken over all link records LR in ClientLinks with LR.State=ON

    (\*if ClientAddresses changes, implementation MUST remove all entries for addresses\*)

    (\*no longer in ClientAddresses though this is not modeled in code\*)

For every link record LR in ClientLinks with LR.State = ON

    Let HGL = LR.HuntGroupLink (\* if no hunt groups, HGL is equal to L \*)

    For every address X in LR.ClientAddresses do (\* update non-Phase IV addresses \*)

        For all links M do SetAddress(X, HGL, M)

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If LR.PhaseIVAddress ≠ 00-00-00-00-00          (* update Phase IV address entries*)
  For every Vlan V in LR.Vlans do
    Let VR be the VlanRecord for Vlan V
    For every link M in VR.VlanLinks do SetAddress(LR.PhaseIVAddress,HGL,M)
    (* next find lowest numbered ON link that reports PhaseIVaddress and update client link
databases *)
    Let L' = Min {M: LinkArray[M].PhaseIVaddress=LR.PhaseIVaddress and
LinkArray[M].State = ON}
    Let HGL' be the hunt group link corresponding to L'
    For every link M in ClientLinks do SetAddress(LR.PhaseIVAddress,HGL',M)

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